DRIVER

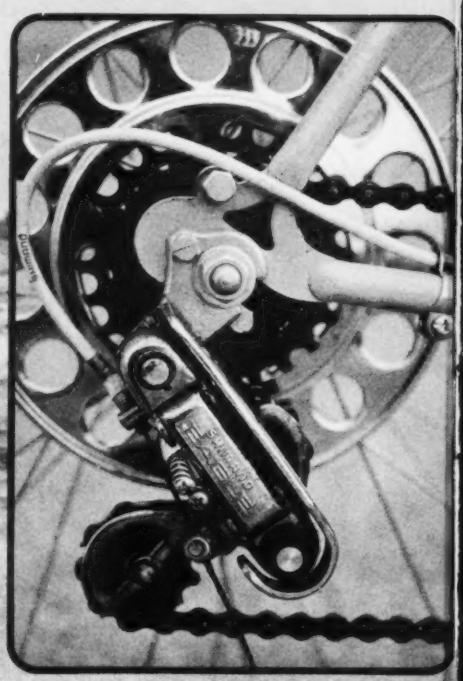
APRIL 1976

A DAY IN THE DIRT

BIKES

BIKECENTENNIAL

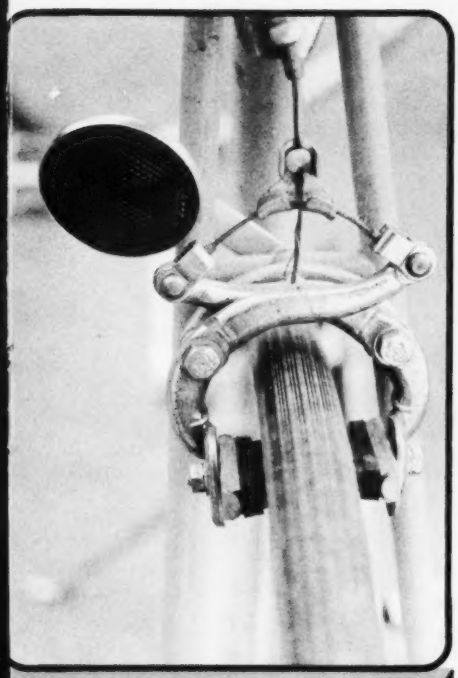
DRIVER



(right)
Quality of construction and individual design is important when it comes to derailleurs and brakes. Brakes should be capable of locking the wheels on dry pavement.

BI

Try to choose routes with light traffic or—better yet—stick to bike trails.



Bicycles, like their riders, come in many sizes and shapes. So if you are planning to join the bicycle crowd, you will want to study the field a little before you take the financial plunge. There is an endless variety of products and prices from which to choose.

Many years ago selection was simple since the choices were generally limited to brand and color. Most everyone rode the very dull single-speed models with large balloon tires.

Today that's all changed. The consumer is faced with a full range of exciting new, light-weight and multi-speed bikes ranging in price to more than a thousand dollars. Price usually goes up with the lightness, number of speeds, and construction quality.

Before purchasing a new bike, you should first decide how much you are going to use it. This will guide you in selecting a suitable model for your needs and may help you avoid paying for a lot of bike you will never use. It doesn't make sense to buy a $200 bike to ride around the block once a week or so.

So if you are going to use your bike to travel around the neighborhood for exercise then you should seriously consider a single-speed model. The money saved can be used for other recreation or pressing financial needs.

As the range of travel and terrain changes, so will your bicycle needs. Normally, a three- or five-speed model is good for up to three or four miles of average travel. These models are cheaper than 10-speeds and have seats (saddles) that are more comfortable for the occasional rider. More on the saddle later.

The really great bikes are the 10-speed models, and any good bicycle shop should have a large variety to choose from. If you are going to ride a lot and cover long distances, the 10-speed's the way to go.

In choosing your new bike, consider the frame construction, type of brakes, tires (tread and type), gears, saddle, handlebars, and accessories. And a

continued

Before setting out you should not only check the bike over thoroughly, but get yourself ready as well. This includes clipping trouser cuffs so they won't get caught in the chain.

BICENTENNIAL

Choosing a bike and hitting the Bikecentennial trail

Photos by Sgts Charles Spizzirri and Tom Bond

DRIVER

THE TRAFFIC SAFETY MAGAZINE FOR THE MILITARY DRIVER

APRIL 1976

VOLUME 9 NUMBER 11

CONTENTS

FEATURES PAGE

Bikecentennial 1
Desert Fun 6
A Day in the Dirt, Part 2 10
Bicentennial Caravans, Ho! 15

DEPARTMENTS

Double Clutch 2
The Backyard Mechanic 22
Timely Topics 26
Backfire 28
Miss DRIVER 29
Emergency ..... Back Cover

DEPARTMENT OF THE AIR FORCE ■ HQ AIR FORCE INSPECTION AND SAFETY CENTER
Norton Air Force Base, California 92409

Lt Gen DONALD G. NUNN
The Inspector General, USAF

PUBLISHED IN COOPERATION WITH THE DEPARTMENT OF THE ARMY AND THE DEPARTMENT OF THE NAVY

DR. FRANCIS S. McGLADE
Director of Safety
United States Army

Maj Gen RICHARD E. MERKLING
Director
Aerospace Safety USAF

RADM WM. ELLIS
Commander
Naval Safety Center

Lt Col DAVID E. RALEY
Chief, Safety Education Division

Capt TOBIAS van ROSSUM DAUM
Editor

VIRGINIA HENDRIX
Managing Editor

SSgt DON HOLT
Technical Editor

FRANCIS R. FOWLER
Feature Editor

DON KELLEHER
Art Director

MSgt BILL FOSTER
Staff Artist

MSgt MIKE KEEFE
Staff Photographer

ALICE MILKEY
Editorial Administration

AFRP 127-1

SUBSCRIPTION—DRIVER is available on subscription for $8.65 per year domestic; $2.20 additional for foreign mailing, 75c per copy, through the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Changes in subscription mailings should be sent to the above address. Single copies will be sold and back copies will be furnished when available. Use of funds for printing this publication has been approved by Headquarters, United States Air Force, Department of Defense, Washington, D.C. No payment can be made for manuscripts submitted for publication. Contributions are welcomed, as are comments and criticism. Address all correspondence to the Editor, DRIVER Magazine, AFISC/SEDD, Norton AFB, CA 92409.

ATTENTION DEPT OF THE NAVY PERSONNEL: Address all queries concerning distribution to NAVSAFECEN, NAS, NORFOLK, VA 23511, Attn: Safety Publications Dept. All other correspondence will be welcomed by the Editor.

The contents of this magazine are informative and should not be construed as regulations, technical orders, or directives unless stated. Address reprint requests, stating intended use of material, to the Editor. The Editor reserves the right to make any editorial changes in manuscripts which he believes will improve the material without altering the intended meaning.

Certain individuals shown in this magazine are not members of the Air Force and therefore do not conform to Air Force grooming standards.

THE EDITOR SPEAKS

DOUBLE CLUTCH

WHY MOTORCYCLE ARTICLES?

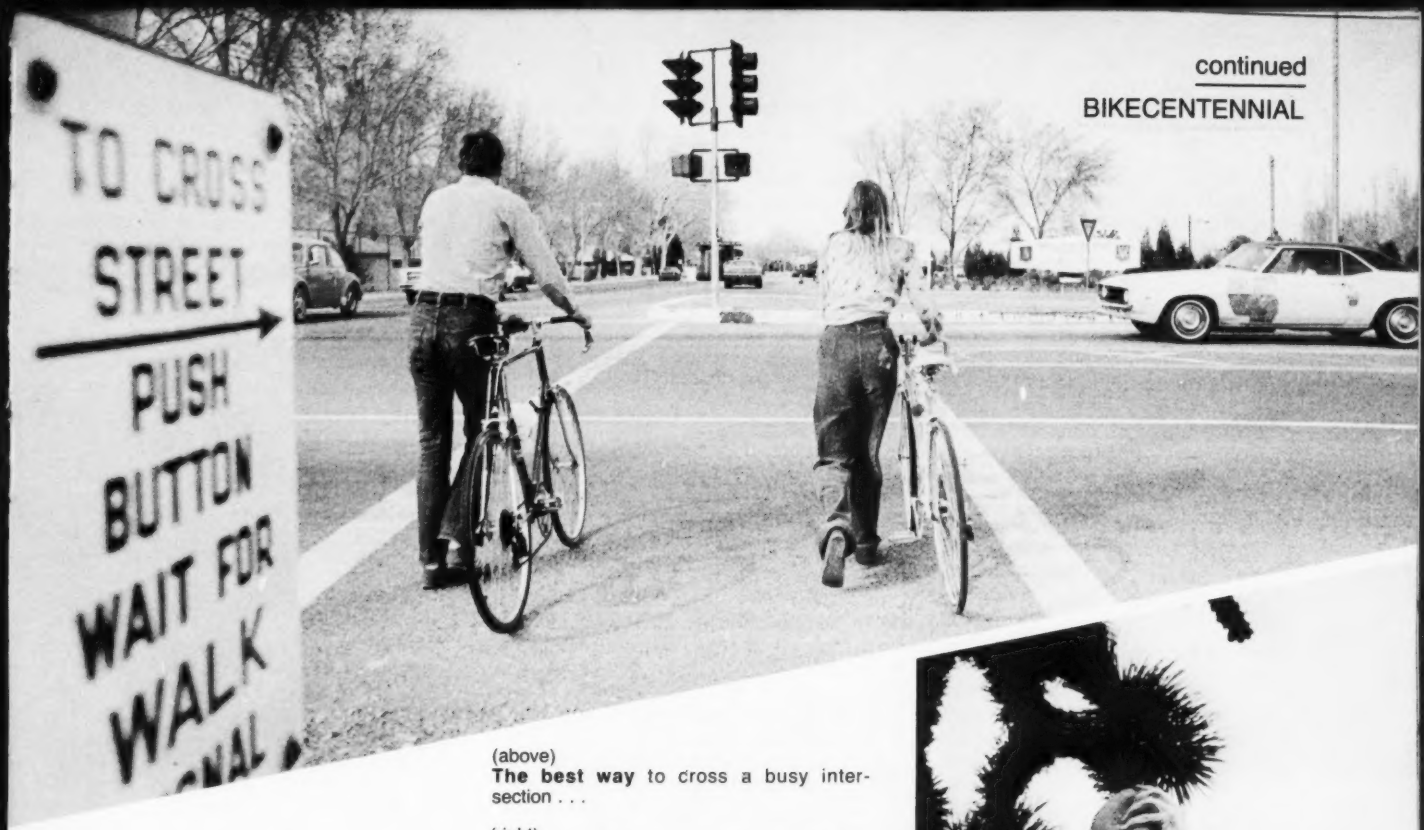
Readers who aren't motorcyclists often ask us why we devote so much space to motorcycling. After all, motorcycles are only a small part of the total vehicle registration in the United States—3.7 percent to be exact. And motorcycles are actually involved in fewer than their share of *all accidents*.

The catch is that motorcycles are involved in far more than their share of *fatal* accidents. In 1974 there were about 14 fatalities per 100 million miles of motorcycle travel. The overall motor-vehicle fatality rate was 3.6, and that includes pedestrians. *Injuries* sustained by motorcyclists in accidents tend to be much more severe than those by victims of accidents involving other types of vehicles.

Since DRIVER's mission is to help everybody avoid traffic accidents, motorcycles have to receive a good share of our attention. Particularly in the upcoming summer months. June, July, and August have the most motorcycle accidents because that's when cycles are used most.

Even if you're not a rider, why not read some of our motorcycle articles? They will help you to understand some of the cyclists' traffic problems, such as the difficulty he has in making himself *visible* to motorists.

1974 was the sixth year in succession that the **fatality rate** for motorcyclists increased. Nobody knows the exact reason, but we sure need to do something about it.



(above)
The best way to cross a busy intersection . . .

(right)
A canteen is a must if you are going to tour.

consumer affairs publication should be consulted for additional or specific information.

THE FRAME

The frame is important for its size, quality of construction, and suitability for the individual rider. A slightly smaller one may not be too bad, but one too large will be most uncomfortable.

On a standard, diamond-shaped men's bicycle you should have about one inch of clearance when straddling the bike with both feet flat on the ground. A correctly sized frame will be easier to ride and require less pedaling effort. The frame should be light-weight and well-constructed. The lighter weight frames typically have reinforcing lugs at the tube attaching points, but some heavy frames also are built using this technique.

Look at the total construction and don't be deceived by any one item in the frame. If you are buying a single-speed bicycle the frame weight will not be a major factor, whereas with a 10-speed touring machine an extra five or 10 pounds will really hurt on long trips.

Most 10-speeds have caliper-type brakes which are either side or center pull. Pulling the handlebar levers presses two brake blocks against either side of the front and back rims. Check your particular bike manual for rim to brake distance; about an eighth of an inch is normal on most. The relative merits of the side-pull type brakes versus center pull are sometimes disputed and seem to depend on specific design and the construction quality.

Most state laws require that the brakes be capable of locking the wheel on dry pavement with the weight of the rider on the bike. So if the brakes on the bike of your choice will do this, they should provide satisfactory service. By the way, be careful when you try the front brake. A sudden, hard application can throw you over the handlebars.

The saddles on the 10-speeds should be carefully checked so that you get one that meets your personal tastes. They are not designed to be sat on in the normal sense, but simply act as a body support.

The peddling rider's weight is supported by the pedals and handlebars; however, the seat selected should comfortably support the limited weight that is applied.

The tire tread design and type are matters for concern. The tread design will influence the coasting and corner-

continued

ing qualities of your bicycle. Firmer tires tend to handle better, and higher pressure ones coast easier. Check with your dealer for the type that best fits your needs. The average rider should have "clincher" type tires since the "tubulars" wear out quicker and are harder to repair should you have a flat.

The gear range and shifting procedures should be discussed with the dealer since there may be variations in these even among the same model bicycles. The bicycle should shift smoothly while under way and stay in the gear selected. The gear ratios should be suitable for your intended use—higher ones for flat terrain areas and lower ones for areas with steep grades.

HANDLEBARS

Dropped handlebars are the only way to go if you have opted for a 10-speed, touring-type bike. You will never be satisfied or achieve maximum riding ease with any other type. Some have brake lever extensions so you can lightly brake with your hands in a "resting" position. If you expect to make a quick, hard stop it's better to use the main levers because the extensions may not get the job done. Also, if you have weak hands, wrists or forearms be careful with the dropped handlebars. They put strong pressure on the arm areas as the legs go down on the pedals and the extra pressure may cause some pain or discomfort. This is especially true on long trips.

There are endless varieties of accessories to choose from, so ask your dealer to show you his selection. Choose only those that fit your needs. Some recommended items are a small tool kit, a knapsack or luggage carrier and a water bottle.

Now that you have your bicycle you are ready to ride.

RIDING THE NEW BIKE

Those who haven't ridden for some time should take it easy on the first few outings. You may find that you are using some "new" muscles and cannot travel as far or as fast as you once could, even on a fancy new and expensive bicycle.

Next, your first outing should be in a large parking lot or on a very lightly traveled street.

You won't want to mix it up with traffic until you have learned to operate the gears and brakes with skill. The front wheel brakes will do most of the stopping, but do not press too hard. You should be able to stop the bicycle in about 15 feet going 15 mph when the brakes are dry. Expect considerably longer stopping distances with caliper brakes when they are wet.

If you are checking out your children, let them practice their new skills in a traffic-free area and then have someone take them out for several trial runs in traffic before they solo. The riding skills they learned in the parking lot need to be practiced in traffic before you can be sure they are ready to go it alone.

Most states have stringent bicycle laws which basically indicate bicycle riders have to conform to motor vehicle traffic laws. These vary from state to state so check yours before you ride in the streets. By the way, some states require bicycles to be registered and licensed for street use.

You will usually be required to ride on the extreme right side of the street so be alert for traffic exiting driveways, alleys and side streets. If there are parked cars, watch for an unexpected door opening or cars pulling away from the curb. If you see a driver in the car, expect the unexpected.

Motor vehicle drivers do not always see bike riders or yield the right of way. Be especially alert for drivers making right turns at stop lights and signs. They will drive right through and never even see you. High-visibility clothing and defensive riding will help.

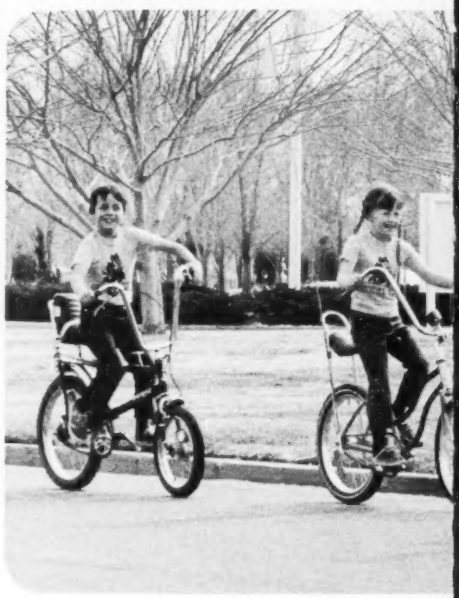
Some state laws permit the bicycle rider to move into the left side of the traffic lane to make a left turn, but this can be pretty chancey and downright foolish on a busy street. The best approach is to stop on the right side at a controlled intersection and either walk the bike across or ride across with the traffic flow. You must walk the bike if you use the crosswalk.

Riding a bicycle after dark is extremely dangerous even under the best of situations. Motor vehicle drivers have great difficulty in seeing the bicyclists.

Federal standards and most state laws require reflectors on all bikes which are ridden after dark. Generally speaking, a white reflector should be in front, a red one in the rear, and white or yellow side reflectors in front of the rider and white or red side reflectors behind the rider. Also, you need a front light which conforms to your state law, normally a white one visible from 300 to 500 feet. Some states permit operation with only a rear reflector; however, many recommend a red lamp visible for up to 300 to 500 feet.

Reflective or high-visibility clothes are strongly recommended. Many bicyclists are killed each year when they are run down after dark by motorists who couldn't see them for a variety of reasons, none good. Again, be extra careful when riding after dark and make your bike and yourself as visible as possible.

The popularity of bicycling among adults is reflected in accidental deaths which number about 1,000 per year. Persons 15 years of age and older accounted for more than one-half of the deaths in 1974 as compared to about one-fifth in 1960 according to the National Safety Council. Bicycling is fun and relatively safe as long as you obey the rules and use good sense.



Now that you have a new bicycle and are all checked out, you may want to make an enjoyable bicycle tour to celebrate America's bicentennial. If so, you will be interested in the Trans-American Trail. This 4,100-mile trail, from Astoria, Oregon, to Williamsburg, Virginia, was developed by Bike Centennial, Inc., a non-profit bicentennial group of Missoula, Montana for your touring pleasure. If you don't have 82 days or the energy for 4,100 miles, they have some shorter tours which might interest you. Also, most communities and parks have bicycle trails to fit most everyone's needs.

One last word of caution—10-speed bicycles are popular items and frequently stolen unless properly secured. You'll need a heavy chain or cable and a really good padlock. When you park your bike, lock it securely to a very heavy or fixed object. The cable or chain should be looped securely around the frame. This arrangement may not prevent a determined thief but it will stop most and slow down all.

Rest stops are a smart idea and can be a lot of fun with the right company, especially if you've packed refreshments in your knapsack.

This father has the right idea about taking his brood for a familiarization ride on their new bikes, but the WRONG idea about which side of the street to ride on. Bikes are subject to the same rules as automobiles which means riding on the right side of the street.

Fig. 1

Trans□America Trail

This summer's tours along the Trans-America Bicycle Trail will last from 12 to 82 days along this 4,100-mile route. Most tours are centered in popular areas such as the Oregon Coast, the Colorado Rockies, Kentucky Bluegrass, and Colonial Virginia. Three years of research have gone into the careful selection of quiet backroads that capture the essence of rural America. The Bikecentennial organization has set up a chain of camping areas and low-cost shelters in communities along the way. They expect that 80% of the participants will be new to the sport of extended bicycle touring. If this sounds like fun to you, write 76 Bikecentennial, P.O. Box 1034, Missoula, Montana 59801, for details.

If you want to hang on to that bike, it must be chained whenever it is out of sight. Pass the chain through the frame and wheel in such a way that the bike frame cannot be ripped off merely by removing a wheel.

Desert Fun

Summer's almost here and thousands of people will be venturing into the desert in some way or other. For most, sight-seeing from interstate highways will be the extent of their exposure. Others will travel off the beaten paths, and some will get into trouble. If that happens to you, how you got there will have a bearing on your predicament. If, for example, you blow a water hose on your "all-the-comforts-of-home" camper, your situation will be different from that of the lone motorcyclist with a broken chain. At least the camper provides shelter from the broiling sun and a good supply of water.

PLANNING AHEAD

No matter what kind of transportation you're using, prove to yourself that it's in good shape. The cooling system is particularly important. When you perform the annual flushing out of the system, carefully check for and replace any worn hoses or belts. Also, does the thermostat operate properly? Should the radiator cap be replaced? And while you're at it, take a look at the tires and brakes.

Maybe all that seems a little obvious, but it's amazing the jalopies that people use to penetrate some of the remote desert areas. Sometimes it takes several days to find them. This advice goes for motorcyclists, too. Check all nuts and bolts, handlebar and control lever mountings. Lubrication is especially important. Most good desert drivers favor dry chain lube compounds, applied daily. Take along a spare master link and chain breaker; also spark plugs, ignition wire, common size nuts, light bulbs, safety wire and a small tool assortment. Always carry spare throttle and clutch cables. Run the spares parallel with the originals. (For a complete rundown on preparing your machine, see DRIVER Oct '75, "A Day in the Dirt").

How much personal stuff you want to take along is a matter of preference, but there are a few basics. Some people think the right costume for the desert is shorts and sandals. Well, unless you're

biking, sandals are okay but carry along stout, high-top shoes or low boots with sturdy soles, and wear *long* pants. You'll see the wisdom of both if you have to do much walking. Everything in the desert from thorns to rocks to insect stingers is sharp. And don't forget a hat.

There are a few other necessities that you can place in a little goodie bag and carry with you even if you have to walk: sunscreen, Chapstick, pocket knife, matches (even if you have a lighter), snake bite kit, flashlight, signal mirror, compass, small first aid kit. That's a minimum collection.

If you're going off the main road, a supply of water is essential. If the maximum daily shade temperature is 120°F., the average adult will need a gallon just *to survive* 2½ days. Needs go up if you walk.

A survival radio is a great idea if you plan to enter really remote spots. They are not as expensive as you might think, and they're invaluable if you need to call for help.

continued

Breakdown on this road can mean a longer walk than you care to think about. Proper preparation, a few tools and spare parts, and plenty of drinking water are a necessity on an unpaved road like this one.

The time to prepare your motorcycle is before you leave home. Here the spokes are being safety wired together so that a broken spoke won't flop around and puncture the tire or jam in the fork when you least expect it.

(above, inset)
The buddy system isn't just for motorcyclists.

You may be surprised to find how loose the desert soil can be. A shovel and ax are handy items to carry along.

(right)
Flashflooding is always a possibility in the desert. Think about it when you park your vehicle and make camp.

THE DESERT IS DIFFERENT

Desert roads can be deceiving. Highways are likely to be two-lane paved roads, but from there things get worse in a hurry. If you're going to try dirt roads, be sure to carry a shovel and an ax in your four-wheel vehicle. Desert soil may be very loose and you don't have to try very hard to get bogged down—thus the shovel and ax, the latter for cutting vegetation to place under the wheels to give traction.

With the things we've mentioned plus a map, you ought to make out under almost any circumstances, but . . .

The summer desert is a rugged place. Temperatures may hit 130 or more on the desert floor. There's usually a breeze, but not always, and sometimes the breeze turns into a gale. You are going to sweat but you may not notice it because the moisture will evaporate so fast. Remember you have to replace that moisture. The time to do it is before you become dehydrated. We recall a convoy that arrived at an Air Force base on a hot summer day. Four drivers were immediately hospitalized, in intensive care. One nearly died and all four were in the hospital for several days. Seems they had shed their hats, shirts and commonsense under a blazing sun in open cabs.

Those men were the victims of ignorance, or maybe the poor judgement of the convoy commander. A couple of other service people we know got into trouble simply because they did a dumb thing. They flew to Death Valley, where they borrowed a jeep for exploring off the road. The jeep was equipped with two cans, one with water and the other with gasoline. Both cans were painted O.D. but one had a red cap and the other a green cap. When they ran out of gas, they also ran out of brains and poured the contents of the can with the green cap into the gas tank. Then they didn't have anything to drink. Luckily, a miner came along and went for help.

Speaking of miners and other hardy souls who live in the U.S.'s arid real estate, they know the ways of the desert and are prepared. Most of them carry water with them all the time. But you don't count on seeing one when you need him most!

ON GETTING BITTEN

You can walk around on the desert for days and never see a living thing, except a few birds and perhaps a lizard now and then. But don't be fooled. Life is abundant in the desert. Most of the animals are nocturnal so you may never see anything bigger than a lizard. However, there are some undesirable characters you will want to steer clear of. Lizards aren't much of a problem, unless you come across a gila monster. He's an ugly fellow, with orange to pink and black to gray markings. Despite his reputation, he's not particularly dangerous, because he's such a stupid, slow-moving character. But he has some venom, and if you try to touch one you could be in for a painful experience.

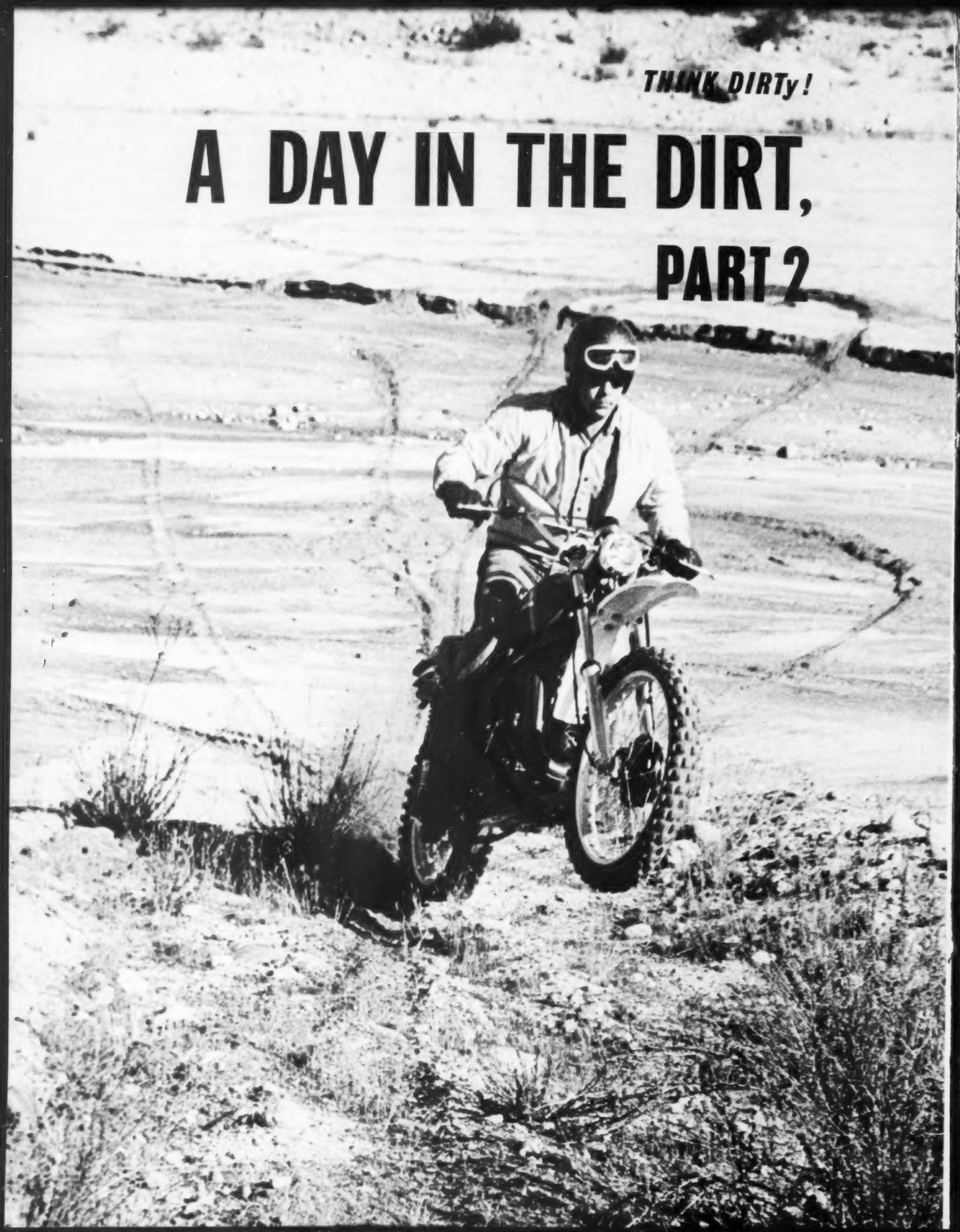
The real bad guy of the desert is the rattlesnake. He is rather timid, but don't get one cornered—he'll strike. Usually, he will give warning, the so-called rattle. However, the rattle sounds more like a broken doorbell. It's a high-frequency buzz, and it gets your attention! Naturally, if you see one you will stay well away, but the danger lies in the physiology of the snake. He can't stand the hot sun so he lies in the shade during the heat of the day. Don't reach under anything you can't see under and watch where you walk at all times.

If you or one of your party is bitten by a rattler, proper action depends on how far you are from help. If you can get the person to a doctor in a short time, cutting holes in the flesh to suck out the poison isn't recommended. Apply a tourniquet to slow (not stop) the flow of blood to the heart. Try to keep the person quiet. If it is you who is bitten and you're alone, you'll have to be active enough to care for your needs, but keep exercise at a minimum until you get help. Nowadays, all hospitals and probably all medical doctors in the desert communities have rattlesnake serum and know what to do for a patient.

ONE MORE WARNING

If you plan to go into the desert off the main roads, leave word with someone responsible as to where you are going and about what time you'll be back. And if you're going by motorcycle, *don't go alone!* Your chances of getting out of an emergency situation are infinitely better if there's another bike and rider with you.

The desert is a great place for recreation. Everytime you go you'll like it better than the time before. But it's a treacherous place for those who aren't prepared.


THINK DIRTy!
A DAY IN THE DIRT,
PART 2

Moto-X boot on the left makes a good riding boot for most occasions. Boot on right is OK for open areas only. Square heel allows boot on right to catch on rocks or brush. If you can't afford new boots, at least cut or file the heel of your GI boots to an angle.

For the majority of off-road motorcyclists, now is the time when a young man's fancy lightly turns to thoughts of . . . DIRT!

April is really the time when we seriously consider dusting off the ol' skid lid and conjuring up five gallons of pre-mix. Well, the sun is out, snow's mostly gone, the kids are playing outside for a change, so now is the time. Let's go!

ARE YOU READY?

We all know that the first ride of the season isn't a matter of "kick the tires and light the fires." You've got to be sure that both your bod *and* your scoot are ready. In the October '75 issue of DRIVER, we covered the basics of man and machine preparation. Haul it out and read it. Go over the machine with a fine tooth comb. Check, tighten, and lube all those long-neglected bits and pieces. Grab a jug of Amphibious-reptileade and a bologna sandwich and head for that river bottom . . . it's gonna be a great day.

WHAT HAVE WE HERE?

A lot of our readers are lucky. They can just go out, check the area, and ride off. They have solid ground under them. Others (ourselves included) are not as fortunate. We get to our riding area and the first thing we find is sand. Lots of it, and it's all soft. Well, we wanted to ride today, so what's a little sand? But, since this is the first ride of the season, we may be a little rusty. Let's review some of the techniques for the conditions we may encounter today.

SAND ON A BEACH IS OK, BUT . . .

Sand can appear in any one of a number of varieties, ranging from that talcum powder-like stuff that wouldn't support an under-fed field mouse, to coarse, gravelly rocks that are the first stage of concrete.

There's one thing all types of sand have in common, and that is: If you aren't riding correctly, you'll experience a case of the "get offs."

Most experts recommend speed for sand, the basic theory being that if you can maintain enough headway, you'll skim over the surface like a water skiier. Let us repeat, theory. Like most theories, there are exceptions.

One of these exceptions is tire size. If your tires (particularly the front) are too skinny, it'll be super hard to make them skim the sand. It appears that tire types, either knobbies or trials universals, don't have too much effect on sand. Size is certainly something to consider, however, when you're trying to decide what type of skins you need to best handle the type of riding you do.

Another exception to the "speed" rule in sand is the amount of large rocks that may be hidden at, or just underneath, the surface. If you make a thorough examination of the area you'll be riding, rocks will make themselves apparent and you can plan your sand techniques accordingly.

OK, exceptions aside, the best way to ride sand is: Weight well back for rear wheel traction and front wheel lightness, feet on pegs, butt off seat slightly, speed sufficient to plane the front wheel, and an easy grip on the bars.

continued

Experts say riding in sand isn't difficult . . . of course, that's why they are experts and we aren't. Sand riding requires weight well back and off the seat, a nice easy grip on the handlebars, and sufficient acceleration to keep the front wheel skimming the sand. Notice the squiggly tire track; this means that the rider allowed the bike to work correctly by not overgripping the bars.

If you're new to sand, you'll find that the front end tends to get a tad bit squirrelly in sand. A new rider will often hold the bars in a death grip as they move about. This won't let the front end work the way it's supposed to, with the result being an intimate examination of the local ground conditions. The key to steering in sand is: easy on the bars.

As we've said, it's a scary feeling . . . the bars really move back and forth and it feels initially like you're going to crash. If you let the bike do its job by keeping your butt slightly off the seat, it'll get you through. So, remember, speed enough to keep the front wheel light, nice 'n easy with the bars, weight off the seat, and let the bike do the work.

Of course, there will be times when it's impossible to keep your speed up. Rocks have a way of making you humble, and a tree in your path will slow even the best rider (hopefully). When the bike feels like it has a flat tire, or the engine really has to strain to keep you going, it usually means a stall is imminent. If you've still got 300 yards of sand staring you in the face, you may not want to stop completely because it's usually hard to get started again. If you can do it safely, jump off and run alongside the bike. This involves no little effort, but it's often better than bogging down and possibly burning out a clutch trying to get restarted. No one will, or should, laugh at you for trying to maintain momentum this way. We've done it, and it's still the best way to keep from stalling.

If terrain or distance is such that you can't try running beside your scoot, you might as well face the fact that you'll have to stop. In sand, this isn't always as easy as it sounds. If you brake too heavily with the front brake or if you chop the throttle too suddenly, the front wheel will dig in. And 99 times out of 100, the front wheel will be canted to one side or the other. We all know what this means. The front wheel will dig into the sand and cease its forward progress. If you're still on board, this can lead to some interesting gyrations and a small amount of abuse to your body.

When a stall or stop is inevitable, pull in the clutch, easy on the front brake, and put down your feet. Tighten your grip on the bars just a little so you can keep them straight, and come to as gradual a stop as you can. Try to avoid either the front or rear tires digging holes for themselves. If the rear tire digs itself down to axle level because you hit the back brake too hard, you'll learn the true meaning of the word "work."

SAND STARTS

Getting started in sand isn't as dangerous as getting stopped, but it requires just as much good technique and more cubic amounts of effort.

Some riders prefer just to goose it and do the duck paddle with their feet. This method is spectacular, we will admit, because it results in huge roostertrails of sand and dust. Unfortunately, it usually doesn't result in a great deal of forward movement. This method normally accomplishes only burying the rear wheel deeper in the sand. Of course, sometimes the wheel will find traction. When this happens with the throttle cranked open, the result is predictable. One great, humungous wheelie. And since the object of this exercise is to ride, not run behind a vertical motorcycle, one would be well advised to try another method of starting in sand.

Try putting your weight well back, a small amount of throttle, and an easy feathering of the clutch. Once the bike is under way, let the clutch all the way out and gradually increase throttle opening. Increase speed once you feel the rear wheel "hook up" with the sand and get on the plane again. One caution though . . . don't feather the clutch too long or make repeated attempts to get started in this manner. You may burn out the clutch. If you can't get going with two or three attempts, let the bike cool a while, or better yet, push it a few feet to a slightly more solid area.

YECCH, MUD!

Those of you who have been truckin' along a portion of trail and rounded a corner to find a puddle of mud know the basic difference between mud and sand. If you haven't tried this yet, we'll tell you the difference . . . sand ain't slippery!

Other types of surfaces have their own peculiarities, but it takes real skill and attention to techniques to keep from going on your ear on (or in) mud.

Riding on mud is like riding in sand because you must keep the front end light or the wheel will dig in. Again, the same basic techniques apply. Weight well back, butt off the saddle, a gentle touch with the bars . . . let the bike do the work, you just balance.

Don't be afraid to "foot" it through a mudhole once in a while. If you really feel like you're going to lose it, put your feet down. If it's goin' down and you don't hold it up, nothing else will.

Unlike sand, mud riding ability has a great deal to do with the type of tires you have. It's in mud that knobbies really hold their own. We're talking about *real* knobbies now, the kind with the valleys between the knobs being at least equal to the area of the knobs themselves. These valleys allow the mud to squeeze out between the knobs and not clog the tire.

Clogging of tire treads, or clogging of the space between the fender and tire, is the second difference between mud and sand. The tire you use for mud *must* be self-cleaning. If the tire tread gets clogged with mud, it's like trying to ride on ice with slicks . . . no way, baby.

A good tire will need only a gentle twist of the throttle to clear itself of mud buildup. Many times, the only way

you'll be able to get going in mud is to get the tire up to self-cleaning speed and throw off that goop. Another way to start in mud is to run alongside the bike till the knobbies clean out (approx. 10 to 15 mph) and then hop on. This method can be a little . . . ah, tacky . . . if you overshoot though, so caution is advised.

continued

If you don't keep your speed up, in sand, the front wheel will dig in . . . usually while it's a little crooked! This is guaranteed to give you a really close view of local ground conditions.

"Gee, I've never seen a bike that's scared of snakes!" No dirt bike article would be complete without a crash-and-burn picture. This is the usual result of applying too much power at the wrong time. Dirt bikes inherently handle well, but they tend to be a bit light in the front end. Couple this with high horsepower and some traction and . . .

this could be the story. If you gotta crash, try to do it in soft sand, it's not too hard on the ol' bod. Rider in this picture isn't hurt, but he *is* amazing other riders with his colorful vocabulary!

(far left)
We'll say it again. Weight well back, and let the bike do the work. You help by shifting your weight to either side and applying throttle as necessary.

(near left)
This is the generally accepted way to start in soft sand. Weight well back, just enough throttle to start the rear wheel spinning, an easy grip on the bars, and visual contact with the ground *ahead* of the bike, not with the front wheel.

Starting in mud is similar to starting in sand except you need a larger amount of rear wheel spin to unclog the tires. True knobby tires are best for mud, as the trials-universal and other types tend to clog more easily. Another difference between mud and sand is that sand isn't slippery! Mud can make you fall right on your ear.

The little decal on the Honda tank says it all as far as DRIVER is concerned. You won't make any friends tearing up Mother Nature's house, and you may damage the environment permanently. Use common sense when deciding where to ride. Helmets are just plain good insurance, and "Think Safety" should be a part of every activity, not just biking.

Do the editors of DRIVER like dirt bikes? Is a five-pound robin fat? Biking provides good exercise, unusually good companionship, and a sense of being a little closer to your environment. A riding buddy isn't only there for safety, he's there because he wants to be. Two bikes, two people, and a good stretch of trail are as good a way as any to spend the day.

continued

A DAY IN THE DIRT

As we said, mud also has a way of clogging between fender and tire. Riders with dual-purpose bikes with street fenders encounter this more often than pure dirt bikers. The mud eventually becomes so balled up that it stops the wheel . . . suddenly! And if it doesn't stop the wheel, it just adds to itself and gets heavier and heavier until it feels like the front tire is made of lead. In theory, the answer is speed. Again, in *theory*. If your front tire is gumming up and you don't feel like risking your neck speeding up to unclog it . . . well, stop and do it manually.

Mud generally builds up on level, smooth stretches because there is little up and down motion of the wheels. You can induce this motion if you bounce up and down a little while riding. If you do this though, make sure you're in a stable attitude, or you could bounce yourself right on to your head.

Also remember that mud will do at least as good a job as water in shorting out your ignition. If mud builds up on plug leads or other ignition components, stop and clean it off. If your engine dies, don't overlook the possibility of plug shorting due to a covering of mud; just wipe off as much of the goop as you can, and wait for engine heat to finish drying out the rest. It's better than 200 strokes of the kickstarter any day.

NEXT MONTH. . .

We'll take up such fun topics as going up hills; going *down* hills (Warning: the Surgeon General Biker has determined that descending hills incorrectly can be hazardous to your health), water crossings, ruts and various and sundry dirt bike misadventures

DRIVER wishes to thank Honda of Redlands, Redlands, Cal., for providing us with the excellent MR 250 test bike.

Brand or company names and products mentioned or pictured do not represent endorsement by DRIVER or the U.S. Air Force.

BICENTENNIAL CARAVANS, HO!

(Next Page)

Making America's past to the people this year is the unique assignment of 131 handpicked soldiers, sailors, airmen, and marines. They are the guys and gals who man the United States Armed Forces Bicentennial Caravans.

Four identical caravans – each composed of four big cab-over-engine diesel tractors, four sparkling white, expansible semi-trailer vans for exhibits, two maintenance support vehicles, and a joint service crew of 13 NCOs – began criss-crossing the country on July 4, 1975. By the end of 1976, they will have visited about 1,000 small towns and communities in all 48 adjacent states. In most cities where America's famed Freedom Train can't go, the trucks are rolling. And if the enthusiastic receptions our service people are getting along the way is any indication of their success, perhaps the Department of Defense won't wait another 100 years to go caravanning again.

The 18-month adventure in community-level patriotism is a joint effort of the Army, Navy, Air Force, and Marine Corps. And the key word has been "teamwork" ever since DOD approved the multi-million dollar project in early 1974.

The Air Force, designated "wagonmaster" for the total operation, supports all four caravans through its official exhibition arm, the USAF Orientation Group headquartered at Wright-Patterson AFB, Dayton, Ohio, and the group's West Coast detachment at McClellan AFB, Sacramento, California. Each service, however, was responsible for designing, building, and manning its own exhibit. The mission: Show the American people the "History of the Armed Forces and Their Contributions to the Nation."

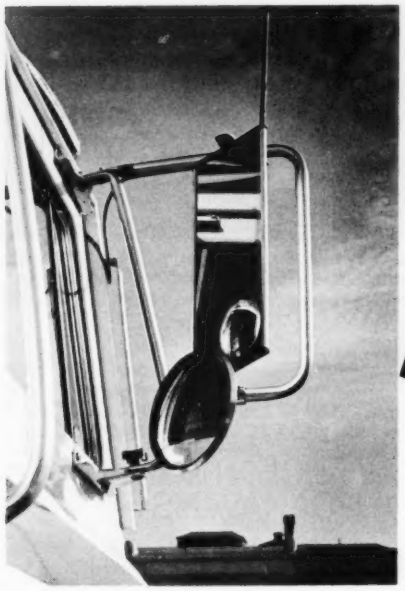
To outfit the four caravans, DOD compiled quite a shopping list. First came 18 International Transtar II sleeper cab tractors, each powered by a 300 hp, turbocharged V-800 IHC diesel engine. Two of the tractors are used to rotate with the 16 regulars. Next came 16 custom-built, 40-foot semi-trailer vans from the Gerstenslager Company, each expanding from 8 to 14 feet wide for display purposes.

Supplementing the big rigs are four Superior 24-foot motor homes, each on a Dodge chassis with a 440 c.i.d. engine, and eight Chevrolet Scottsdale carryalls with 350 c.i.d. engines. Four of the carryalls travel ahead of

Every rig is equipped with a set of day or night reflectorized orange triangles to position along the roadway in an emergency, five 15-minute flares, a first aid kit, and two handheld, dry chemical fire extinguishers. Some trucks also carry snow chains, shovels, and ax.

Spotting a rig into a tight display position often calls for three people—the driver and front and rear spotters. Easily understood hand signals comprise the key to quick spotting.

Mirrors can be life savers. In addition to those on the driver's side, each tractor is equipped on the right side with a big "west coast" mirror, a fish-eye mirror, and an extra spot mirror to keep the driver aware of possible dangers from any angle.



Ships aren't the only places where "spit and polish" are the order of the day as land-based Navy E02 Billy Coltrain will testify. Caravan crewmembers hand-polish all of their gleaming red, white, and blue vehicles at least once a month and hand-wipe them free of dust every day before opening for public display.

the caravans to lay out the best routes and handle advance publicity.

There are eight 13-member Bicentennial crews, two per caravan, equally representing all of the Armed Services. Crews alternate between a month on the road and a month at Wright-Pat or McClellan AFBs.

To get a first-hand picture of this special operation, DRIVER hitched a ride with one of the caravans, interviewed crewmembers, and talked to numerous other Bicentennialists across the country about their experiences. Next to flying with the Air Force's Thunderbirds or the Navy's Blue Angels or jumping with the Army's Golden Knights, this has to be one of the most rewarding traveling jobs in the Armed Forces today.

What's it like to drive one of the big tractors? "Since many display sites are in small towns," explained Army Sgt Al Phillips, "there is a lot of back-road driving. Some locations are hard to get a big truck into, so each driver must be able to back his rig just as well as he can drive it forward."

Safety is of paramount importance and driving through larger cities can get complicated. Police escorts often are requested. Urban freeway traffic is hazardous, particularly during rush hours. "Drivers' minds aren't on their driving," commented Navy E01 Ed Graves. "Whether you have the right of way or not, you've got to give the other guy the benefit of the doubt."

"Yeh," chimed in Marine Sgt D.C. "Andy" Anderson, "any big city is a threat to a truck driver. Since we're bigger, we have to be more cautious as well as more courteous. You have to use all your mirrors – not just one or two."

Caravan commanders also have their opinions. Marine MSgt Jake Smith, better known as "Top" to members of his crew, emphasized that his rigs don't travel too close together, especially in two-way traffic. "As long as we've got eye contact," he related, "we're less apt to have an accident. We also have to be careful with our air horns, because they can startle people who aren't used to them. We use them for emergencies only."

Air Force TSgt Bill Haines said one of his primary concerns while driving is the motorist who cuts in front of him in heavy traffic. "You have to keep figuring a way to escape. You

continued

Citizen Band (CB) radio communication between moving vehicles is all-important to driving safety and to meeting exhibition schedules on time. Here, Air Force TSgt Bill Haines squawks his caravan commander while rolling across California's Mojave Desert.

also have to watch out for the guy entering from a freeway on-ramp. You usually don't know whether to slow down or get over for him. That means you've also got to worry about the driver who may be following you too close."

Each caravan vehicle is equipped with a Citizen Band (CB) radio. This permits the caravan commander in the lead carryall not only to alert his drivers to upcoming road and traffic conditions but also to keep track of his rigs in heavy traffic or bad weather.

The CB units really come in handy on city streets, according to Marine Sgt Bill Burke. "You have to watch your trailer wheels when turning corners, and the driver behind can tell you if you're getting too close to a curb or pole."

Display sites, although large enough to accommodate a caravan, frequently are too small to park the 55-foot rigs unless they are backed carefully into position. This is where the second man in the tractor comes in handy. He knows where the van must go and acts as spotter to help the driver back into place.

Not all caravan members are drivers. About half of them have some kind of audio-visual or construction maintenance specialty and are responsible for setting up and maintaining the sophisticated display equipment inside each van. That's where the motor home comes in. It's a maintenance utility vehicle, specially fitted with cabinets and equipment for on-the-spot repairs.

The drivers check brakes, lights, oil levels, fan belts, and batteries daily as well as other items on Air Force Form 374. Although the Transtar tractors are red, white, and blue, they are government vehicles and are checked and maintained under the same standards. Oil changes on the power generators are required every 100 hours of operation. Any major repairs are handled under manufacturers' warranties at local truck dealers along the way.

Non-drivers take turns "riding shotgun" in the diesel rigs. There usually are a driver and helper in each cab during runs between towns, and night driving is kept to a bare minimum as an additional safety measure.

Once spotted into a show site, each of the three-man service crews has about an hour to set up its own van. A van is first leveled with manually-operated screw jacks, then another crank is turned to widen a 23-foot area on the sides of the van from a width of 8 to 14 feet, giving it 480 square feet of display space.

Removable stairs are assembled and attached to the vans as are sets of exterior lighting fixtures. Drivers then check and start the 30-kilowatt Onan auxiliary generator mounted behind each tractor cab to provide electric power to the vans. Exhibits which have been secured for travel are set up and assembled for display. And the Navy van which has a small yacht-sized radar unit complete with antenna mounted on the van roof, is given an operational checkout.

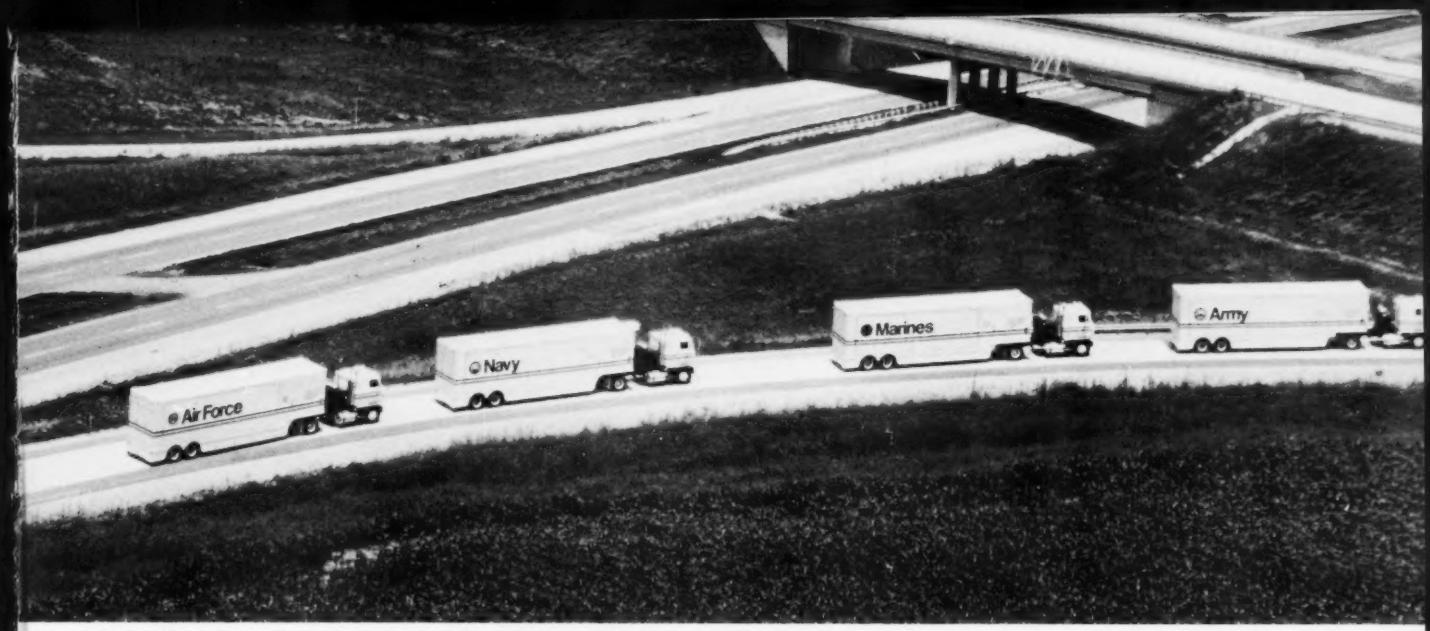
After dusting off the outside of the vans and tractors, the crews head for a local motel in their carryall and van. They quickly shed their fatigues or special Bicentennial coveralls (they're among the few members of the Armed Services authorized to wear Bicentennial patches), shower, don Class A uniforms, grab a fast lunch, then head back to the exhibits.

Opening ceremonies often include speeches by community leaders, performances by school bands and drill teams, and a ribbon cutting. Then, as lines form to enter the vans, display crewmembers position themselves to assist spectators and to answer their many questions. Crewmembers rotate periodically so everyone gets a short rest break. The day goes quickly, especially when the crowds are large, and it is soon time to tear down the exhibit again for the next day's travel.

Whether it's driving, maintaining, or setting up exhibits, or standing display, Bicentennial Caravanners are putting in long, hard hours to provide America's communities with a taste of history. Cooperation and teamwork are the keys to accomplishing their mission safely and on schedule.

UNITED STATES ARMED FORCES BICENTENNIAL CARAVANS

(DRIVER expresses special appreciation for assistance in preparing this article to the Bicentennial Caravan project historian, AF SSgt Duane Coon; Navy Lt (j.g.) Chuck Connor, project public affairs officer; and AF Capt Ron Lee, Det. 1 maintenance officer, USAF Orientation Group.)



Taking the heritage of America to the people are four Armed Forces Bicer.tennial Caravans like this one rolling along an interstate highway in Kentucky. While the gaps between vehicles were closed for benefit of the photographer, the rigs are normally staggered a quarter-mile or more apart. Not seen is the lead vehicle, a carryall, driven by the caravan commander.

(right)
Leading each caravan in a Chevy carryall is the caravan commander, usually from a quarter-mile to a mile ahead. This permits him to alert his big rig drivers to any unusual road or traffic conditions via his CB radio.

TOURING A BICENTENNIAL CARAVAN IS A ONCE-IN-A-LIFETIME OPPORTUNITY

If an Armed Forces Bicentennial Caravan comes your way, don't miss the opportunity of a lifetime to see it—and take along members of your family and friends. The most modern equipment and communciation techniques are used to enhance the displays, making them entertaining as well as educational.

The Air Force van is a mini-theater seating 45 persons. Inside you'll see a 17-minute production across five screens detailing the history of flight. It won the Gold Medal as the Best Multi-Media Documentary at the International Film & TV Festival of New York in November 1975.

Exhibits in the Marine Corps van illustrate the Corps' colorful history and include a special section on the "President's Own" Marine Band.

The Navy exhibit portrays its history and includes its many technical achievements. An actual working radar and a time signal link to the U.S. Naval Observatory are on display.

The Army van features walk-through displays covering its history and accomplishments and includes an experimental bionic arm and night-vision "Starlight Scope."

continued

Who's the chauvinist who said setting up a van into display configuration is a man's job? Navy PH2 Lynn Levesque, right, a photographer by duty title, joins AMS2 Gary Dorman in muscling a stairway into position. Female caravanners share all work details with their male counterparts except diesel tractor driving.

Caravan crewmen always attract spectators when they perform their daily maintenance checks on each International Transtar II tractor and its 300 hp, turbocharged diesel engine. A 30 kw Onan auxiliary generator with a John Deere diesel engine mounted behind the cab to power electrically operated displays in the van also gets a checkout. The dual 123-gallon fuel tanks appear to be chrome but actually are highly polished aluminum.

Bringing up the rear of each caravan is a 24-foot Superior motor home. In addition to a handy kitchen and lounge for crew member rest breaks during display and road stops, it carries a variety of emergency repair items necessary to maintain sophisticated audio-visual equipment in each van in tip-top operating condition.

continued

BICENTENNIAL CARAVANS, HO!

"It's not a recruiting effort," emphasizes the project commander, Air Force Lt Col Ron Fleet. "Our goal is solely to provide as many American communities as possible an opportunity to plan their own Bicentennial celebrations around the visit of one of our caravans. Many of the displays are of the do-it-yourself variety. They emphasize contributions by the Armed Forces in the fields of exploration, medicine, military research, and disaster relief."

Each van accommodates about 100 spectators every hour. Allow one to two hours to see the whole show.

(right)
Bicentennial exhibits appeal to people of all age groups. Here, Marine Gunnery Sgt George Benter explains the history and contributions of the Corps from the American Revolution to the present to some young visitors.

(left)
An award-winning, 17-minute slide show spread across five screens greets visitors to the USAF's Bicentennial van. Forty-five persons at a time can see the multi-media program describing the development of aviation and the history of the Air Force.

"HEY FRED IT'S TIME-

". . . HOW DO I GET THIS

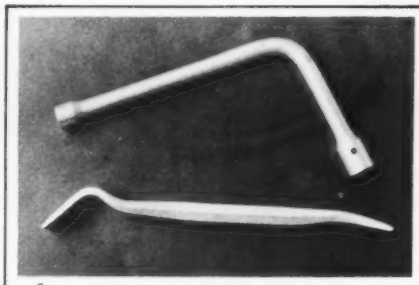
!!*!!*#*!!

THING APART?"

We know that our readers aren't often burdened with a bag full of cash to buy tools, but there are times when the right tool will not only help you get the job done faster and easier, it'll help you do it safer.

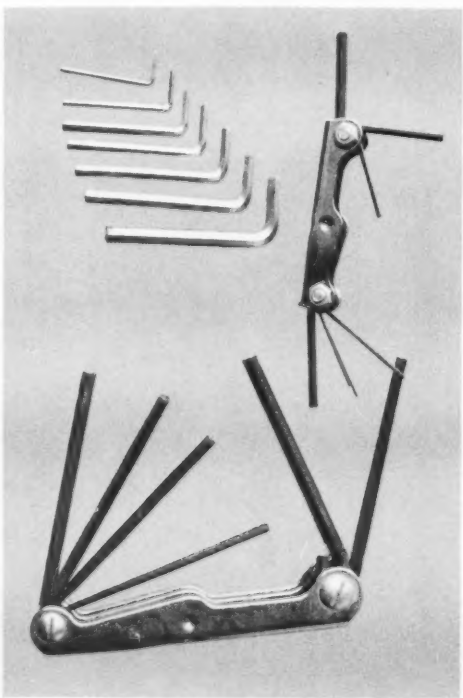
Granted, the purchase of special tools can set you back a couple of bucks, but don't forget that these tools can sometimes be rented or borrowed. And you know, deep in your heart, that when you're trying to compress a valve spring, two C-clamps and a length of bailing wire just won't hack the program.

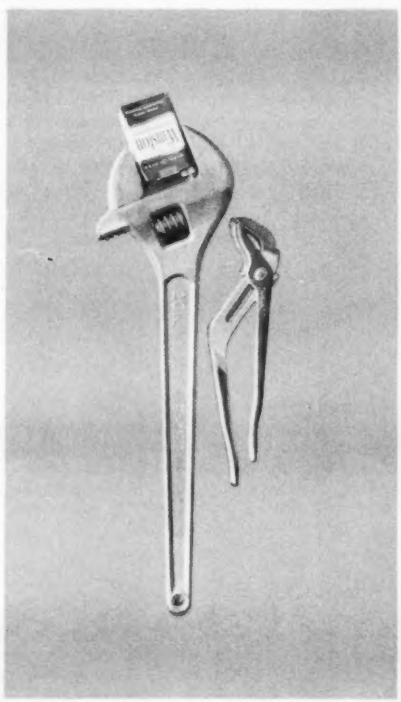
So, for those of you who need special tools sometimes but don't know exactly which ones, DRIVER suggests you peruse this small selection which will, in the words of W.C. Fields, "just delight and amaze you."



Brake tools are always handy items to have in your own tool box. The top wrench is a two-socket, bleeder valve tool. Use it to initially break loose those stubborn valves and then use your open-end wrench, bleed tube, and catch basin to bleed the brakes. On the bottom is our trusty brake spoon. It lets you adjust drum brakes by turning the star wheel inside the brake hub and drum assembly. Both are inexpensive.

Also inexpensive is the battery hydrometer. This is an excellent tool to have for preventive maintenance as well as for troubleshooting. You may also want to get an anti-freeze hydrometer. These tools rate as "nice to have" but most base auto hobby shops can supply them.





SAVING TOOLS

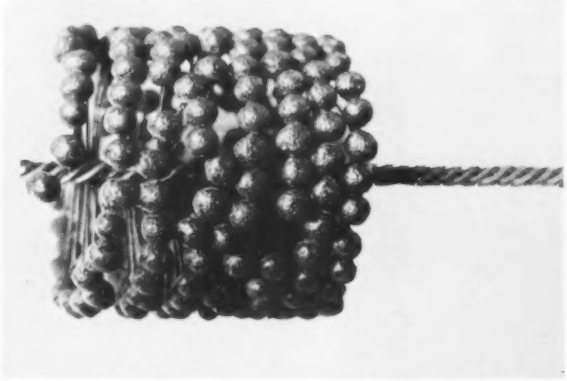
If you read the installation directions on an oil filter, you'll see it says to "hand-tighten only." OK, we'll buy that, but have you ever tried to get one of those devils off? Engine heat, combined with grease and oil, make it almost impossible unless you have an oil filter removal wrench. Some cars have fuel filters that have to be removed with this same tool.

(far left)
Allen or hex-head wrench kits are SOP for bikers, and four wheelers need them too. Some of the automotive applications are: ignition components, heater and a/c knobs, interior door and window handles, transmission bits and pieces, and almost any place where a collar fits over a shaft.

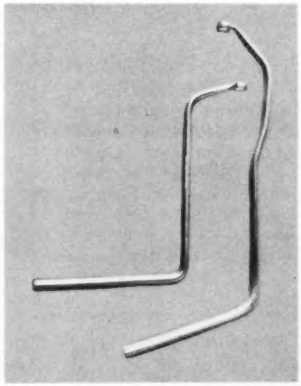
(near left)
The tool on the left is a crescent or adjustable wrench. Besides the screwdriver, it's the most misused tool there is. Use it where you can't get a socket to fit. And remember, always pull a wrench, never push. The tool on the right is a pair of adjustable pliers. They don't provide too much mechanical advantage, but they are super useful in gripping odd-sized or eccentrically shaped objects.

continued

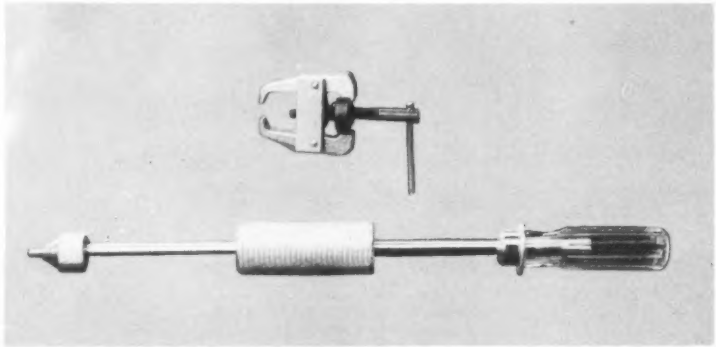
Short circuits; blown fuses; which wire goes where—you can tell it all with an electrical test kit. Handy in tracking down electrical problems, and in radio or stereo installation. Don't wait for that "battery problem" to go away . . . track it down before you fry something.



Believe it or not, this is a cylinder hone. This type comes in sizes, like conventional hones, but does a much more uniform job and is easier to work with. The flexible arms and ball-shaped abrasive make it simpler to get that good, cross-hatched pattern in your engine or brake cylinders. This type also makes a better glaze-buster than the conventional design.

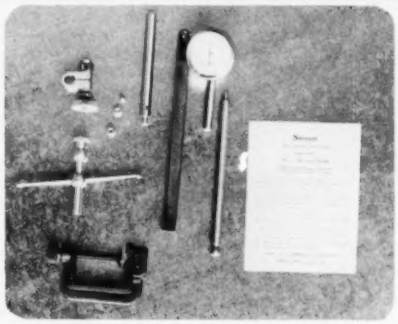


Ever tried to get to that Ford distributor hold-down nut without the right tool? It's a real bear on some other engines, too, and that's where offset, extra-length wrenches come in. These wrenches are a real safety factor. Your hands are nowhere near the fan while doing timing adjustments and securing the hold-down bolt.

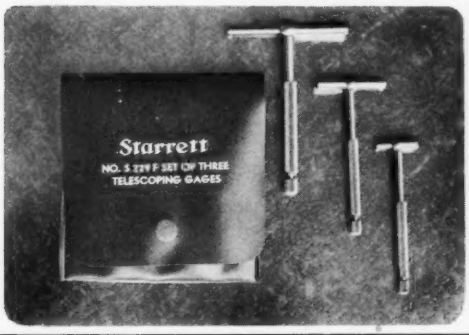


Pullers big and small. On the top is a battery cable puller. It saves you grief by removing the battery cable instead of the battery post. Below is a dent puller. Drill a hole in the bent sheet metal, screw in the puller, and whack away. This tool is really great if you have some frustrations to vent. It's also the only tool with which we approve this type of over-muscle. Use it primarily for dents that you can't reach from behind, such as rocker panels or double wall fenders.

Expensive tools department. Only the dedicated hobbyist will buy these, but we'll all need them at one time or another. They are often available at the base auto hobby shop.



Left: micrometers measure bearings, journals, brake rotor wear, anything that needs a thickness measurement.

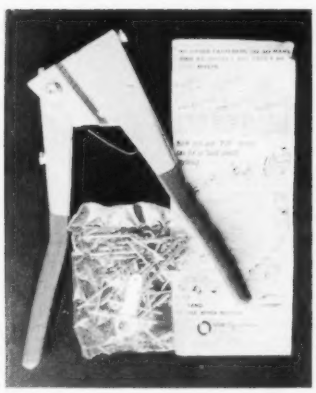


Above: dial indicator (runout gauge) measures eccentricity of round objects, circular objects; also use to check deformation of disc brake rotors or almost any plane surface.

Left: telescoping (bore) gauge measures the bore diameter and concentricity of holes and also substitutes for an inside micrometer.

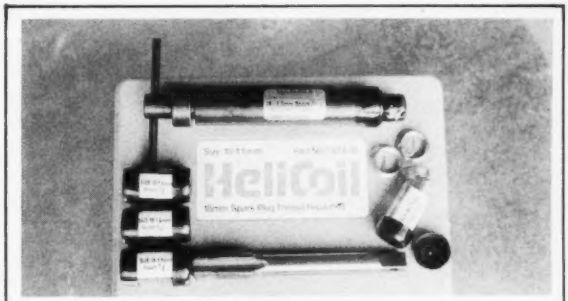
This is an upper rear main bearing seal installer. It's a long name, but in some cases, it can save you a *bunch* of work. With this little goodie, you don't have to remove the crankshaft to install the upper rear main seal. Check with the manual or a qualified mechanic before you use it though . . . despite what the package says, it won't work on all cars.

The motorcyclists' friend . . . the impact driver. This device converts the vertical motion of a hammer stroke to a rotary motion for removing screws and Allen bolts. If you're going to take your bike apart, this tool is a must. One caution though. Don't use a nail hammer to strike the driver; the hammer face may shatter. Use only the correct type of machinist's hammer.



This pop riveter is a real gem. If you want to attach two pieces of sheet metal to each other without welding, this is the way to go. Especially useful in bodywork such as installing new rocker panels, fender flares, almost any replacement sheet metal.

Those stories of people who can install piston rings with a leather belt and a mallet just aren't true. To insure that you don't damage either the rings, piston, or cylinder during ring installation, use a ring compressor. A little tip to remember for piston installation is to put rubber tubing over the rod bolts before dropping them into the cylinder bores. The rubber protects both the cylinder walls and the crankshaft journals from scratches and dings.



This special tool is used mostly by motorcyclists. It repairs cross-threaded or blown spark plug holes. Since motorcycle cylinder heads are mostly aluminum, they are easy to strip or cross-thread. The Helicoil actually inserts a new set of plug size threads into the head. A real money-saver when you consider the cost of a new cylinder head for your scooter or car. If you don't use a torque wrench all the time, you'll need a Helicoil insert sooner or later.

TIMELY TOPICS

ONLY IN AMERICA . . .

The land of the pet rock has produced yet another zany hustle . . . phoney Edsels. They're not replicars, but they are reportedly worked up well enough to fool even the experts. The fakes are based on 1957 Fords which, apparently, require the least modifications to become ersatz Edsels.

Those of you who are Edsel collectors would be well advised to check engine and chassis numbers before you purchase that pristine Citation or Pacer.

DO SEAT BELTS WORK.?

Just ask Bobby Allison! The auto racing millionaire from Hueytown, Alabama, was involved in one of the most spectacular crashes in stock car racing history at the Carolina 500 on Feb 29.

The whole thing began on the restart after a yellow flag. Allison, in second place, and Cale Yarborough, in third, were closely jockeying for position coming out of the second turn onto the backstretch.

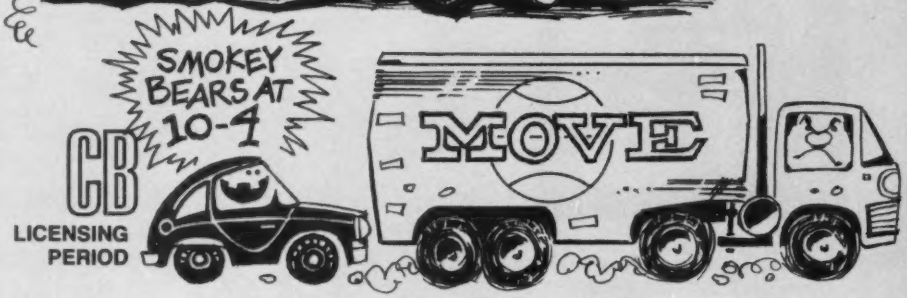
NASCAR course workers said it appeared Cale went too wide, overcorrected, and veered back in clipping the right rear of Bobby's Mercury. Allison's car spun in front of Yarborough and then flipped over the top of Cale's car.

Interviewed later in the hospital, Allison said, "I didn't know I was in trouble 'til I was upside down!"

When Allison's car came down, it landed on top of Richard Childress' Chevy and then began a series of flips that lasted almost the length of the back straight. The impact ripped off doors, fenders, trunk and hood. The only thing left intact on the car was the roll cage and the safety harness.

Bobby said later that the worst thing about the crash was that he got dirt in his eyes during the tumble. He said, "My chest hurt a little when they brought me in because of the pounding I took from the safety harness." Allison attributed his survival to the safety harness that kept him in the car. "With that harness holding me in, I didn't even break a bone . . . those things really work!"

We don't advise that you roll your car twelve times to prove that your safety belts work . . . just take Bobby Allison's word for it!



In the CB radio article in the March issue, we said two weeks was the time it took the FCC to return your CB license and call letters.

Because of the huge number of new license applications, you can now expect to wait from six to eight weeks for your license.

You should remember that transmitting without a license is a federal crime. It may help you to exercise patience while waiting for your license.

Do you know if your car has ever been recalled? The National Highway Traffic Safety Administration (NHTSA) has a new program to let owners of vehicles determine if their cars have ever been recalled. If your car was built after 1 Jan 1974, just write to NHTSA, Consumer Services

CARBON MONOXIDE IS POISON

A traveler was spending the night in a motel equipped with individual room air conditioners/heaters located under the windows. This placed the fresh air inlets immediately above the walkway. The parking lot for guests' cars was on the other side of the walk.

Before sunrise, the traveler was awakened by the noise of an early riser who was warming up a car in the parking lot. It was a good thing the racket waked him—his room was filled with choking fumes and a high concentration of carbon monoxide. Because the car had been backed into the parking space, the vehicle exhaust was being pumped directly into the air inlet of the room.

The traveler was a safety engineer who was fully aware of the dangers of carbon monoxide poisoning. He wasted no time in notifying both the local manager of the motel and the corporate headquarters of the chain. The immediate solution appeared to be a sign in the parking lot prohibiting guests from backing into parking spaces. When you see such signs, be sure to observe them. They are usually for safety reasons such as this.

One of the DRIVER staff has a Bronco that his wife took to work one day. The day after that, our six-footer tried to sit in the seat that his five-foot-tall wife had adjusted . . . lo and behold, it was stuck in the small one's driving position. After numerous attempts to move the seat to the rear, he gave up and tried to drive the car with the seat forward. Uh-uh, no way . . . his knees kept hitting the steering wheel and he couldn't get his foot off the gas and onto the brake. Not to mention the fact that he looked like a wizened gnome in AF blue.

Front seats that stick are a real hassle, but the cure is painless and inexpensive. A spray can of WD-40 or similar lubricant with a small tube attached to the nozzle will enable you to reach up under the seat and spray the tracks. Cycle the seat through the positions several times and you should be back in business.

If the seat still won't move, chances are the cable that links the seat release lever to the second seat rail is broken. If the cable is broken, you don't have any choice except to remove the seat and repair the cable. Seats are usually secured by capscrews through the seat rails into the floor.

If your car has power seats, check for loose or cut wires going to and under the seat. Also, check the movement of the seat position switch.

Whatever you do, though, don't try to drive when the seat isn't positioned correctly for you . . . it's a bad feeling when you can't reach the brake pedal!

Division, 400 Seventh Street, N.W., Washington, DC 20590. Include your VIN (vehicle identification number), usually found imprinted on the top of the dash. NHTSA will tell you (for free) if your car was included in a recall.

About Miss DRIVER
(See page 29)

Eighteen-year-old Sherrie Engler is a student at Victor Valley J.C., Victorville, California. She is planning to become a psychiatrist, and her interests include short story writing, modeling, horse training, swimming, and tennis. Sherrie told DRIVER one of her pet peeves is the driver who fails to yield the right of way.

LETTERS TO THE EDITOR

BACKFIRE

Address your letters to:
Editor
DRIVER Magazine
AFISC/SEDD
Norton AFB CA 92409

STAYING ALERT

I read with great interest November's article entitled "Single Car Accidents" and applaud you for the comprehensive way in which the major causes of this type of accident were handled.

I would like to add to some topics discussed in the article. The first concerns drugs other than alcohol. One of the most commonly used and abused is the antihistamine for symptomatic relief of colds. The majority of antihistamines produce drowsiness in some people and are labeled with a warning by military dispensaries. The same drug obtained through civilian sources, however, may not be adequately labeled.

Secondly, to confirm your comments about the favorable effects of coffee on wakefulness is this quote from *Catholic Digest:* "Many studies have confirmed the old belief that coffee is highly stimulating. It is known to be a CNS stimulant . . . that it can reduce fatigue and drowsiness, and help the mind think faster and more clearly."

In my opinion, the greatest benefits are obtained by stopping frequently—say every two hours, for coffee, rather than by carrying a thermos with you. This breaks the monotony, changes the scenery and probably the temperature and humidity, and allows the driver to change position, stimulating circulation and respiration, as well as stretching cramped, tired muscles.

A1C Ronald C. Durbin
756th Radar Squadron
Finland AFS, MN 55603

Thanks for the info, Ron. Your letter gives us the chance to hit the point again about the benefits of frequent coffee breaks when driving long distances. Coffee is useful to make you more alert, but it's important to remember that it is NOT a substitute for sleep.

BEST TIRES ON REAR

In the Nov '75 issue of DRIVER on page 28, column 3, there was an article called "Best Go On Back." It states that you should put the best tires on the back of a vehicle for safety.

I was told in driver's ed class they should go on the front. I asked around and not one person said they would put them on the back. Remember the back tires follow the front tires. If you have a blow-out on the front, hold on.

Could you check around and have your article corrected in a future edition if wrong?

J. R. White
USS Chicago CG-11

Best tires go on the rear because best traction is needed in the back to compensate for lack of steering control if you skid or swerve. That's the official word of the Tire Industry Safety Council whose membership includes every major tire manufacturer. Incidentally, J.R., we couldn't answer your letter because you didn't send us your address. We reply to every letter we receive, so if any of you readers have been waiting for an answer and haven't heard, it's because you didn't remember to include your address on your letter.

THE HIGH SIDE

First my applause for your many fine and informative motorcycle articles. There is always something there for the novice and expert alike.

But the reason for my letter is that information given is only as good as its accuracy. And in the interview with Bruce Ogilvie (Oct '75 issue), you made a slight editorial goof. At the end of the interview Bruce made a reference to the biker's term "high side." And your editorial note explained to the non-rider that it meant missing a curve. Your explanation is only correct in that this dreaded type of spill usually only happens in a missed attempt of a turn. But I believe that Bruce was really referencing the real hazard of laying a bike down when missing a turn and the bike suddenly rights itself and throws the rider *over* the bike or over the bike's "high side."

It may be of interest to the beginner or novice rider that it is usually better in laying the bike down in the dirt to get off and let the bike go and avoid being catapulted over the bike with the feeling of being shot out of a cannon. Because those 25 to 30 feet of uncontrolled flight through the air, which usually end with a landing on the head or shoulder or—worse—against a tree or rock, is the least accepted way among experts for getting off their two-wheeled show. I speak not as an expert though I have been riding (street) for about 10 out of the past 17 years and only about the last 2 years have included dirt riding and dirt racing. But I speak from experience of taking that flight over the "high side" during a motocross race. I layed the bike down and held on when the bike caught traction on a berm and threw me, by witnesses' account, farther than Evel's record but without the bike. I remember thinking during that bird's-eye view of the course that I should roll when I land. I did, but only after landing on my shoulder and breaking my collar bone in two places. By letting go of the bike I now feel I wouldn't have been injured and I'm constantly reminded of this with the changes of the weather.

Thank you for your time and please keep up the good work.

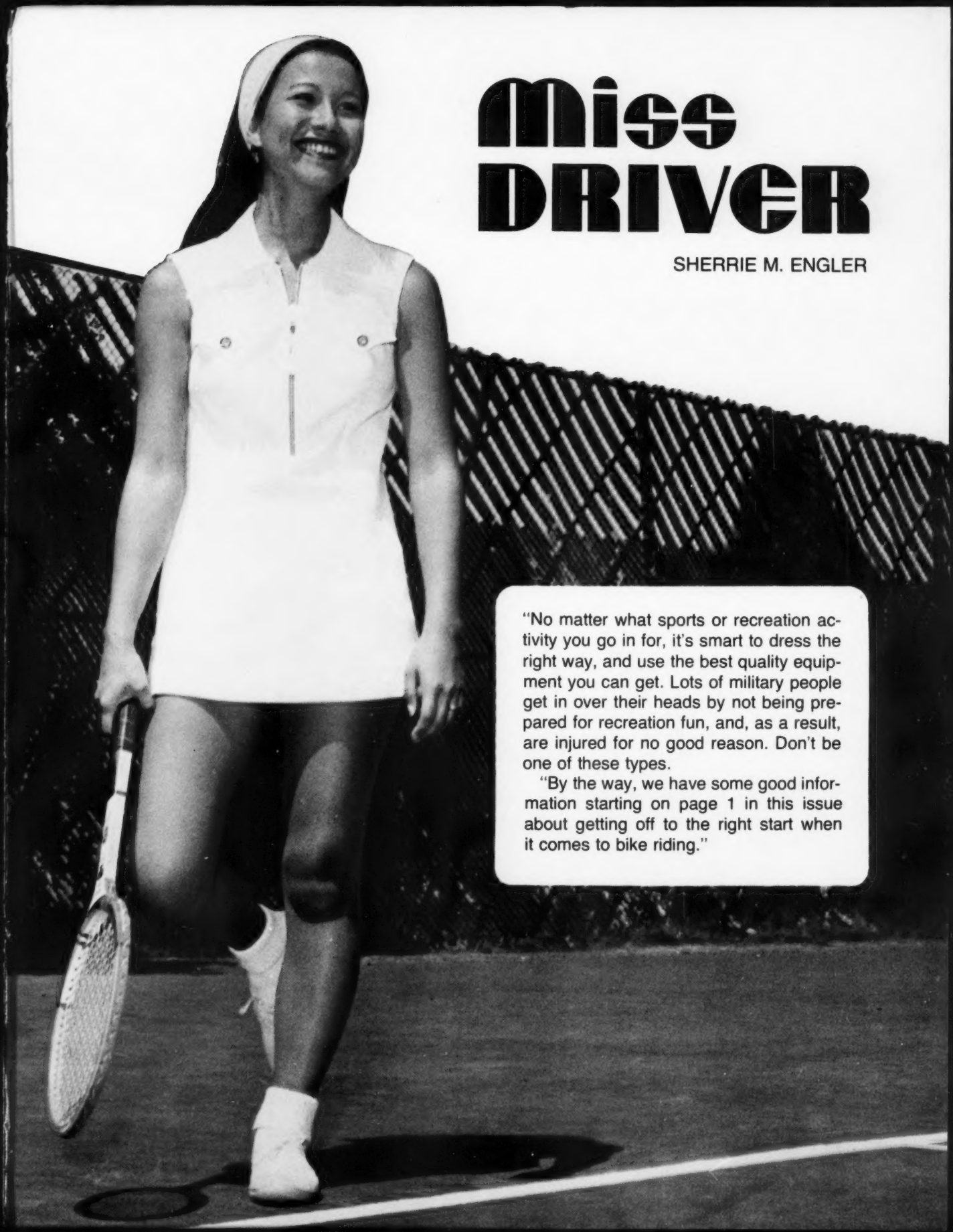
SSgt Alan M. Lochner, USAF
312 Pinckney Street
Sumter, SC 29150

What Bruce meant by "Watch out for the high side" was the act of going straight at a corner, or off the "high side" of a corner. Lately, "high side" is used by dirt riders referring to the type of crash you mention.

*Your advice is certainly correct, though. The **last** thing you want is to stay with the bike in **any** type of crash, let alone a high side. Sliding down the highway or along a cactus patch is doubly unpleasant if you're being chased by 280+ pounds of hot metal.*

Rolling when you land is OK for the dirt rider because of the (usually) slow speed of dirt crashes, but for a street rider in a high speed get-off, sliding is preferable. That's why leathers are such a good investment for the street rider. They let you slide and just get a raspberry or two instead of broken arms and legs caused by a tumbling, flailing limb type of roll.

☆U.S. GOVERNMENT PRINTING OFFICE: 1976—683-613/8



Miss DRIVER

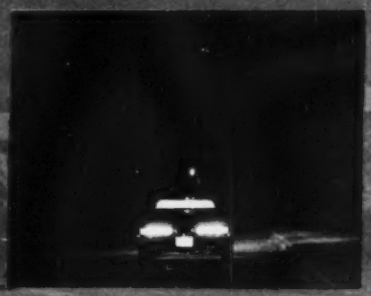
SHERRIE M. ENGLER

"No matter what sports or recreation activity you go in for, it's smart to dress the right way, and use the best quality equipment you can get. Lots of military people get in over their heads by not being prepared for recreation fun, and, as a result, are injured for no good reason. Don't be one of these types.

"By the way, we have some good information starting on page 1 in this issue about getting off to the right start when it comes to bike riding."

Get the car off the road before it stops rolling.

(below)
If the car is close to a traffic lane, on a curve, or over a hill, get everyone out and well away from it.



(right, top)
Turn on taillights, emergency flashers, and interior lights at night.

(right, center)
Place a warning device or flare 10 feet in back of the car and another 300 feet to the rear. Still farther back if a hill or curve interferes with normal sight distance.

(right, bottom)
To signal for help, raise the hood and tie something white to the antenna or left door handle.

EMERGENCY! Highway Stall